

USA vs. DAVIS ET AL vs.
AMERICAN CYANAMID

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Depo of Arthur Curley
August 21, 1996

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF RHODE ISLAND

DUBRENN
(215) 963-5407
2000 ONE LEGAN SQ
PHILA, PA 19103

Case Number:

C.A. No. 90-0484/P

Phase III.

UNITED STATES OF AMERICA,

Plaintiff,

vs.

WILLIAM M. DAVIS, ET AL,

Defendants,

vs.

AMERICAN CYANAMID, ET AL,

Third-Party Defendants.

DEPOSITION OF ARTHUR THOMAS CURLEY, JR.

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DANGERS OF NITRATING ACID Page 38	Page 39
<p>1 oleum, 20 percent, 40 percent, 60 percent 2 oleum. 3 Q. Was there any hazard connected with 4 the disposal of -- 5 MR. DILLON: Could I ask the 6 witness to give me a short pause before he 7 begins to answer because the witness is 8 answering directly on the heels of 9 Mr. Rachlin's question which is forcing me to 10 try to squeeze the objection in and I would 11 like to accommodate the Court Reporter if at 12 all possible. 13 BY MR. RACHLIN: 14 Q. What, if any, hazards are 15 associated with the disposal of nitrating 16 acid? 17 MR. DILLON: Objection to 18 form. 19 A. It is very dangerous stuff. 20 Especially the nitrating acid, spent or 21 otherwise. 22 The nitrating acid itself was much 23 more dangerous but even the spent, which was 24 about 85 percent, I think the spent was 25 roughly 85 percent sulfuric and around 4</p>	<p>1 percent nitric, I believe, the rest would be 2 water. It is a concentrated acid, it would 3 be very dangerous. 4 BY MR. RACHLIN: 5 Q. For lay people could you describe 6 what some of the dangers are in the handling 7 of this substance? 8 MR. DILLON: Objection to 9 form. 10 A. Well, certainly it would blind you 11 or burn your skin very badly if you ever got 12 it on you. It could be fatal. And 13 additionally the fumes from the acid would 14 probably be oxides of nitrogen which can be 15 dangerous also. 16 BY MR. RACHLIN: 17 Q. What would happen if this spent 18 acid were mixed with water? 19 MR. DILLON: Objection to the 20 form. 21 A. It would fume, you would get steam 22 coming off because of the heat of dilution 23 and you would get oxides of nitrogen 24 released. 25 BY MR. RACHLIN:</p>

HAZARDS OF NITRATING ACID

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1 Q. What color would it be?
2 A. I think NO-2 is a yellow vapor.
3 Q. Would this --
4 A. And the steam, you wouldn't
5 necessarily see that because the steam might
6 mask it. If you put water into that acid you
7 are going to get a bubbling effect from the
8 heated dilution, so you may or may not get
9 the yellow fumes visible, but they would be
10 there anyway.
11 Q. Would those fumes have a capacity
12 to kill insects in the vicinity?
13 MR. DILLON: Objection to
14 form.
15 A. I wouldn't be qualified, I don't
16 think, to answer that.
17 BY MR. RACHLIN:
18 Q. Do you remember being present when
19 the hazard of mixing nitrating acid with
20 water was demonstrated to a hauler at the
21 plant?
22 MR. DILLON: Objection to the
23 form.
24 A. I am not sure -- go ahead.
25 BY MR. RACHLIN:

REACTION OF ACID & WATER - FUMES

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1 Q. Maybe the question is a bit
2 unclear.
3 Do you remember ever having
4 demonstrated to a potential hauler of this
5 acid right at the plant what some of the
6 dangers were in the handling of it?
7 A. I don't specifically remember, no.
8 But it is certainly something that might have
9 taken place.
10 Q. Now the nitrating acid was a liquid
11 obviously, was it not?
12 A. Yes.
13 Q. The waste solvent was a liquid?
14 A. Yes.
15 Q. The wastewater was a liquid?
16 A. Uh-huh.
17 Q. That is yes? You have to answer
18 yes.
19 A. Yes.
20 Q. And the solid waste by definition
21 was a solid, I take it?
22 A. Not by the government's definition
23 of solid waste, but, yes, in my terms, yes,
24 solid waste was solid.
25 Q. During the relevant period, I am

FUMES WOULD BE YELLOW
- CAPACITY TO KILL INSECTS (BEE?)

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1 BY MR. RACHLIN:
2 Q. Can you tell us what Exhibit 4 is?
3 A. Yes. I was -- it was a waste
4 report prepared by Jake Young, that was
5 Stewart Young was Jake Young.
6 Q. That is his handwriting?
7 A. I believe so.
8 Q. You will notice on a lot of these
9 there are things that have been obliterated
10 courtesy of Ashland's counsel. I mention
11 that only because we understand that those
12 obliterations were not on the originals.
13 Having that in mind as we look at
14 this exhibit, Exhibit 4, let's just make sure
15 that what we think we understand correctly,
16 we, indeed, do understand correctly.
17 I take it under date we have the
18 date that the waste was removed from the
19 plant. Is that what that means?
20 MR. DILLON: Objection to the
21 form.
22 A. I believe so, yes.
23 BY MR. RACHLIN:
24 Q. Were these entries made, if you
25 know, on the same date that the waste was

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1 removed from the plant?
2 MR. DILLON: Objection.
3 A. No.
4 BY MR. RACHLIN:
5 Q. When would they be made relative --
6 A. I believe the way Jake would have
7 prepared this was at the end of the month he
8 would have got his paperwork and listed them
9 all because I had told him that I wanted a
10 report.
11 But I am answering the question, I
12 really couldn't answer. My answer would be
13 that he prepared it like I prepared my
14 monthly report, this was his monthly report.
15 Q. What would he have used the source
16 material for? The data? What he put into
17 the reports?
18 MR. DILLON: Objection to
19 form.
20 A. Whatever shipping records there
21 were at the time. And eventually, I am not
22 sure when the manifest system came into play,
23 but certainly he would have used the
24 manifests once that came into play. I don't
25 think that came into play until 1980, if I am

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1 not mistaken.
2 BY MR. RACHLIN:
3 Q. Where is Stewart Young now, if you
4 know?
5 A. The last I knew he was in Florida.
6 Q. Do you know where in Florida?
7 A. No.
8 Q. Again, I wouldn't have to do this
9 with every sheet, but to make sure we
10 understand, under waste there would be what
11 appears to be some kind of a generic
12 description, spent acid CDN, wastewater CDN,
13 you have already described what the spent
14 acid was.
15 What would the wastewater from CDN
16 be like? What would it contain, if you know?
17 MR. DILLON: Objection to
18 form.
19 A. My recollection is not good about
20 CDN wastewater, but the CDN product, it is a
21 normal cleanup procedure for an organic to
22 wash it with water. And it certainly would
23 wash out any salts that are in -- soluble
24 salts in the product, cleanse the product
25 from the salts and there would be traces of

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1 different by-product organics. Beyond that,
2 I couldn't tell you anything further.
3 BY MR. RACHLIN:
4 Q. What about wastewater dyes referred
5 to in the bottom part?
6 A. That would be a mixture -- it
7 wasn't necessarily from dyes but most of it
8 did come from the dye operations. So it
9 would be a very dilute wastewater with a
10 pretty intense color from the dye.
11 Q. I'm sorry, I didn't mean to
12 interrupt. Under "company," I take it is
13 listed the company that you contracted with
14 for the removal?
15 MR. DILLON: Objection.
16 A. Yes.
17 BY MR. RACHLIN:
18 Q. I see ABTC but there are a number
19 of companies obliterated by counsel. Having
20 in mind the dates stated on Exhibit 4, are
21 you able to tell us what one or more of those
22 companies would have been that have been
23 obliterated here?
24 A. I would have to guess because --
25 Q. A guess may not be good enough.

Q5 RE X4 - A MONTHLY (10) REPORT

- Q RE X4

Q RE W/W DYES

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<p>1 that correct?</p> <p>2 A. Yes.</p> <p>3 Q. Did you go out or have anyone go</p> <p>4 out and have anyone test all of those drums?</p> <p>5 A. What Stewart Young and myself did</p> <p>6 in the first probably year or so that I was</p> <p>7 at the plant was go out and check drum after</p> <p>8 drum after drum and basically we didn't have</p> <p>9 a gas chromatograph, the most we had was</p> <p>10 litmus paper so we could tell whether it was</p> <p>11 corrosive or not.</p> <p>12 We would smell it, try to determine</p> <p>13 what solvent was in it. Beyond that unless</p> <p>14 we had a staff like the EPA sometimes can</p> <p>15 have it was near impossible.</p> <p>16 Q. So for any particular drum out</p> <p>17 there, how many drums were there?</p> <p>18 A. At one point I guesstimated with</p> <p>19 full and empty it was something around 4,000</p> <p>20 drums.</p> <p>21 Q. And for any particular drum or set</p> <p>22 of drums you can't state with certainty what</p> <p>23 the chemical constituents in the drums were,</p> <p>24 can you?</p> <p>25 A. No. Some of them were labeled,</p>	<p>1 some of them were not labeled. The labels on</p> <p>2 some of them were not actually what was in</p> <p>3 them so we had to really use our judgment as</p> <p>4 to roughly what it was.</p> <p>5 Q. If I understand your testimony to</p> <p>6 Mr. Rachlin, if you look at one of the waste</p> <p>7 logs that you were being shown earlier today</p> <p>8 do you have any way of determining when the</p> <p>9 waste in question was actually generated?</p> <p>10 A. Only with the spent acid because we</p> <p>11 didn't have a large capacity for spent acid</p> <p>12 so that was more or less shipped out as it</p> <p>13 was generated. But and the thallic acid</p> <p>14 generally that was specific to a process.</p> <p>15 Other than that, no.</p> <p>16 Q. With regard to the drums?</p> <p>17 A. No.</p> <p>18 Q. You have no way of knowing when the</p> <p>19 drum load was, in fact, generated as waste,</p> <p>20 do you?</p> <p>21 A. As time went on, if we are talking</p> <p>22 about the relevant period, no. But as time</p> <p>23 went on, yes, because we started labeling the</p> <p>24 drums. In fact the law said you had to label</p> <p>25 them a certain way and then we were able to</p>
<p>• TESTS(?) RE CONTENTS OF STORER (V) DKS</p>	<p>• Q'S RE WHEN (V) IN CLK WAS GENERATED</p>
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<p>1 pinpoint it.</p> <p>2 Q. I am staying in the relevant period</p> <p>3 as defined by Mr. Rachlin, July 1, 1976 to</p> <p>4 November of 1977, in that time period - I</p> <p>5 will give you an example look at what has</p> <p>6 been marked previously as Curley Exhibit 8.</p> <p>7 If I call your attention to line 4</p> <p>8 of Curley Exhibit 8, it appears, if I read</p> <p>9 straight across 6/1/77 residues, Chemical</p> <p>10 Waste that is the company, gallons 79 drums,</p> <p>11 disposal, Sanitary Landfill.</p> <p>12 Looking at this today do you have</p> <p>13 any ability to determine when those 79 drums</p> <p>14 were generated?</p> <p>15 A. No.</p> <p>16 Q. Do you have any way of determining</p> <p>17 what is in those 79 drums?</p> <p>18 A. Only very, very, very generally.</p> <p>19 Q. Are you aware, Mr. Curley, of every</p> <p>20 process run at Great Meadows before you</p> <p>21 became plant manager?</p> <p>22 A. No.</p> <p>23 Q. Is it possible that some of the</p> <p>24 drums that were there when you arrived as</p> <p>25 plant manager had come from time periods</p>	<p>1 before Ashland even owned or acquire the</p> <p>2 plant?</p> <p>3 MR. RACHLIN: I object to the</p> <p>4 form.</p> <p>5 BY MR. DILLON:</p> <p>6 Q. You may answer.</p> <p>7 A. We are talking 1966 to 1974. It is</p> <p>8 certainly possible that some of drums could</p> <p>9 have been around that long. Certainly not</p> <p>10 most of them, but I certainly couldn't</p> <p>11 preclude that possibility.</p> <p>12 Q. Mr. Curley, you have been in the</p> <p>13 business of working for companies that</p> <p>14 manufacture chemicals for quite a while.</p> <p>15 What is the total length of time as you</p> <p>16 calculate with Ashland and Southland?</p> <p>17 A. Well from 1953 to 1993, 40 years.</p> <p>18 Q. And when you became plant manager</p> <p>19 at Ashland in Great Meadows in 1974, did you</p> <p>20 exercise your best efforts to make certain</p> <p>21 that all waste was handled as properly as</p> <p>22 possible?</p> <p>23 A. Absolutely, anyone back there will</p> <p>24 tell you that I busted my hump to try to get</p> <p>25 things done right.</p>
<p>• Q'S RE CONTENTS OF DKS OF W</p>	<p>ALLOD/PARTOR - CARK</p>